Edgar Dapuy

AGAINST OVER-ATHLETICISM

BY

JOSEPH H. BARACH

As to whether we as a people are to survive the times—as to whether we are to go on living, growing, improving, and continuing to be an important factor in earth's civilization, and as to whether or not we are going to keep the pace which we have thus far set for ourselves, depends primarily upon the physique we now possess, and the one we will transmit to future generations. In the great average, out of a good animal a good man is probable, and out of a poor animal a good man is doubtful.

If history could be read aright, I believe we should find that so long as physical decadence was averted, national life continued and flourished.

Grecian history for example, teems with evidence of the high type of physical development that existed in the heyday of their zenith.

But when their abstemiousness was lost—when their healthy pleasures were displaced by orgies and excesses—then it was that they passed their meridian.

With us as a people, very little attention has heretofore been given to the physical side of our lives; and it is only in recent times that we have begun to see ourselves in the perspective and have taken heed of the necessity for physical education.

And now that it has come, that in the present day our consciousness to such a need has been awakened, it is well that we exercise judgment and care, so that we may look forward to the best results possible.

There are but few spectacles that give one more wholesome satisfaction and are more pleasing to the eye than the witnessing of a stalwart body of marching men or youths, showing strength and grace and harmony of motion. There are very few scenes that are more pleasing than groups of healthy youths engaged in a game on the athletic field. And what is finer and gives us a purer pleasure than the sight of a strong symmetrical, and agile human being?

Up to this point of development we may well devote ourselves, and with profit. But, with Athleticism as with all things, an excess may be reached, before its presence is fully realized. And with this excess of athleticism, there come certain conditions which may easily be a source of trouble and danger to the individual.

It is this over athleticism and overtraining that I shall discuss today, attempting to show its manifestations, the harm that may come with it, and to indicate to a certain extent how such may be prevented.

From the Transactions of the Fourth International Congress on School Hygiene, Buffalo, August, 1913.

The human body as a whole, and each organ separately, responds with certain inherent limits to the peculiar demands for work set upon it. This we see in the various occupations as well as in the various forms of sport. The blacksmith develops large shoulder muscles and large biceps; the mail carrier develops the muscles of the lower extremities; the man who lifts heavy weights develops large muscles of the back —and so on. The tennis player develops the forearm; the football player, back and leg muscles; in the runner, the leg and heart muscles show increased development.

But whichever muscles are especially well developed, with them the circulatory system, particularly the heart, shows evidences of the extra demand set upon it; and if the demand has been great, shows a like increase in size and force.

During exercise the heart rate is quickened, and the blood pressure, the intra-vascular tension is increased. The increase in pulse rate and pressure is proportionate to the demand as determined by the severity and duration of the exertion. After the exercise the blood pressure falls to a level lower than normal, and remains thus for a variable length of time.

The function of the kidneys is also altered. First they are influenced by the increased flow of blood through them; the blood stream comes to them at an altered pressure, and at the same time bringing more waste products to be excreted. The other bodily organs are likewise taxed. This increased work for the muscles, for the heart, for the kidneys and for other organs, is primarily a stimulant, and is productive of good, but when carried past a certain point, and by too frequent repetition, reaches beyond the normal and becomes abnormal.

Much of the interest in our search for the harmful effects of over-training and over-exercise, has thus far been centered about the state of the heart and blood vessels, because at the present time we look upon their condition as being indicative of the individuals general state of health. Knowing what the average normal is—for the size and shape of the heart—for the blood pressure and pulse rate, and for the kidney excretions, we have made numerous studies of the ways in which individuals respond to physical exertion and strain, and our results lead us to certain inferences and conclusions which seem unmistakable.

A brief effort of half an hour to two hours' duration on the athletic field will cause marked stimulation in the bodily functions. These effects are for the good when the participant is in health. But up to the present, how frequently does one take the time to consider whether such a participant is in good condition, and whether the physical effort of that day will do him any good, and if it may not do harm?

In a recent series of observations, after approximately one hour on

22500894609

the athletic field, I find that in 60% of the participants, the kidney function is so disturbed that a cloud of albumin and casts were present, and in about half of these the amount of albumin and blood and casts present, would have been considered extremely alarming had such an individual presented himself for examination to a physician, not knowing its cause. Of course the degree of disturbance depends upon the form of exercise, and in my own observations, running is capable of producing the greatest amount of disturbance. An important factor is, whether the participant has been having a sufficient amount of rest. Staying up late at night, digestive and other disturbances, and existing abnormalities from previous illness; all such influences seem to exaggerate the ill effects from physical exertion.

Now, it is not my intention to convey the idea that one or two hours of active or even strenuous exercise will produce permanent injury to the heart or kidneys, but I do know and say that at the end of a period of training over an entire season, certain changes do become manifest, and as to whether these altered states are innocent or harmful in the after life of the individual, is a very important question. Statistics show us everywhere that diseases of the heart, blood vessels and kidneys are on the increase. Authorities who have studied this question are divided as to the subsequent harm; my own conviction is, that harm does frequently follow in the after life of the over-trained athletes. It behooves us who think of the future to look about and find its various causes and forestall them if possible.

In the runner—after six to nine months training, the heart will usually show a marked enlargement—frequently much beyond the normal, and the blood pressure will show a level considerably higher than normal. These effects are more marked as a result of brief and hard training, which I am certain is particularly harmful. In many instances, after cessation of training and exercise, the over-development gradually subsides. The heart shadow as seen by the X-ray recedes to the normal, and no ill after effects seem to follow. But in a conspicuous number, and in my own observations, in perhaps the greater proportion of highly successful athletes whom I have known since they left college and have stepped into the various walks of life, the recession toward the normal did not occur insiduously, and not without a repetition of disturbances for perhaps several years. An enlarged heart capable of intense strain is of no more use to an individual who is to lead a comparatively quiet life, than is a 60-horsepower motor for an automobile traveling over level city streets.

Thus far we have considered the effect of exercise and training upon the perfectly healthy. But in the school as a whole, we will usually find a considerable proportion of students who have heart or lung or kidney

affections, or tendencies to disease of these organs. In these cases the disturbances are more serious and the ill effects are fraught with actual danger at times.

To get the best results, we should carefully consider the health of each participant before his partaking in any form of exercise. His general condition should be carefully considered, his lungs and heart should be critically examined by specially trained physicians, his blood pressure should be estimated, and a urinalysis made.

A trained medical man can prescribe the form of exercise for which each student is best fitted, and whichever kind will do him most good. He can determine when the amount may be increased and when it is to be diminished.

Another function of those in charge should be to eliminate the element of constant overstrain and strife. This frequently defeats the very object of athleticism and creates many fanatics. It takes the element of sport out of the play, and that which should be a source of mental relaxation and a physical pleasure becomes a competition full of stress and anxiety.

I have it upon authority from men who know, that the North American Indian—who was fond of games, and their descendants who now enter into the various teams throughout the country, when not spoiled by our strenuous influence—enters into the game and plays it with the healthy spirit of a child—he plays for the sake of playing—for the love of the game itself, rather than to vanquish a foe, as we do, upon the gridiron.

The attitude here taken, has come to me from observation covering a period of years.

It has often seemed a pity—that some of the fine athletes I have seen did not stop short of where they did—before they actually injured themselves. One athlete expressed himself to me, saying that after his successful football career he has always felt that the game has taken something out of him which he feels he can never regain. I presume he meant that he had already taxed his latent physical reserve force to its utmost —and that he finds himself incapable of his former endurance. It is true that very few once successful athletes, as is said in athletic parlance, ever "come back."

Withal this—I am well aware of the actual value of athleticism—and competitive athleticism—in the life of youth and man. Its physical value, its moral value and its psychological value. And that the physical accomplishment may be but a manifestation of a strong will and a latent power, and what a loss it may be to suppress these dominating influences of our lives. I am cognizant of these facts—and therefore I believe to

the utmost in athleticism. But, it is over-athleticism against which I would speak—such as is the result of overtraining, such as brings harm in its train; and should be avoided.

And that in our athleticism, we should by all means, retain the spirit of the play, and avoid the excesses that come with keen competition, so that we may get out of this phase of our lives—what nature intended, when it gave the play instinct to the animal—man.

WELLCOME INSTITUTE LIBRARY	
Coll.	welMOmec
Coll.	pam
No.	QT 255
	1913
	B22a